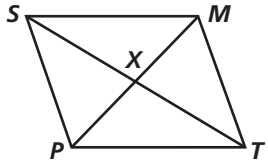
Name _____ Class _____ Date _____

Practice 6-3

Proving That a Quadrilateral Is a Parallelogram

State whether the information given about quadrilateral *SMTP* is sufficient to prove that it is a parallelogram.



1. $\angle SPT \cong \angle SMT$ _____

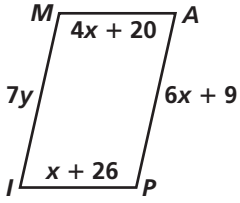
2. $\angle SPX \cong \angle TMX, \angle TPX \cong \angle SMX$ _____

3. $\overline{SM} \cong \overline{PT}, \overline{SP} \cong \overline{MT}$ _____

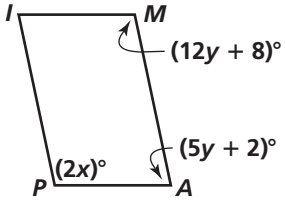
4. $\overline{SP} \cong \overline{MT}, \overline{SP} \parallel \overline{MT}$ _____

Algebra **Find the values of *x* and *y* for which the figure must be a parallelogram.**

5. $x =$ _____, $y =$ _____

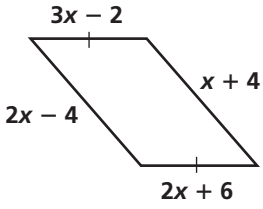


6. $x =$ _____, $y =$ _____

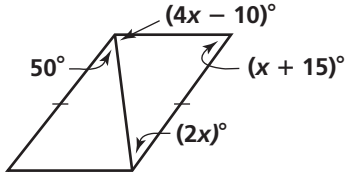


Algebra **Find the value of *x*. Then tell whether the figure must be a parallelogram. Explain your answer.**

7. _____

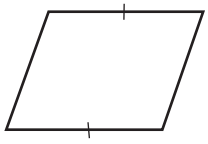


8. _____

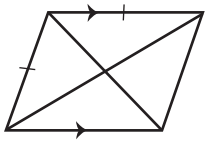


Decide whether the quadrilateral is a parallelogram. Explain your answer.

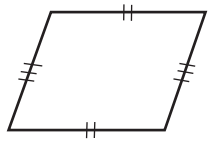
9. _____



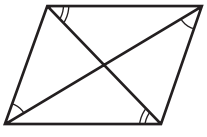
10. _____



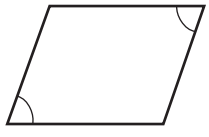
11. _____



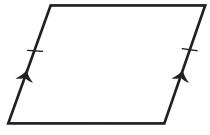
12. _____



13. _____



14. _____



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